Virginia Point. About sunset the wind, veering all the time to the north, and, if possible, increasing, brought the large volume of water from the bay on to the island with such force and violence as to sweep everything in its course. On land every house, camp, sod house and inhabited structure was swept away, except the old Mexican custom-house. Only one of the vessels held to its moorings.

On the 5th of October, 1842, another hurricane visited Galveston, but the wind was not so high as in 1837, nor the tide, although much of the town (then lower than at present) was flooded, and considerable damage to goods was sustained. The wooden Episcopal Church, on the southeast corner of Tremont and Winnie Streets was blown from its blocks and badly wrecked. A number of other buildings were damaged and several small structures were demolished. No loss of life in the town was reported.

The great gale of September 16-19, 1854, which swept the Texas coast, did not inflict much damage at Galveston, its greatest force being felt to the westward. Of its effect at Galveston the Civilian and Gazette of September

An easterly gale began to blow last Saturday and has continued almost without interruption to the present time. The wind has not been severe, but being from the quarter which always produces the highest tides, the waters of the Gulf and bay have been higher than we recollect since 1842. The floors of a number of stores on the Strand were overflowed during Sunday night, and considerable damage was done to such articles as were deposited on the floor. The little steamer Nick Hill was lost off Dollar Point.

The greatest force of this hurricane was felt at the town of Matagorda to the westward of Galveston. Col. R. D. Parks, then residing there, but afterward at Temple, said: "It left a trail of disaster to be recorded in history. Hardly a house was left standing in the townsite or vicinity." Another eyewitness says: "The storm at Matagorda was September 18, 1854. The water from the bay did not come over the town. Two people were killed. The steamer Kate Ward and crew were lost in Matagorda Bay—from report it was said at Dog Island.'

The great hurricane of August 10, 1856, was felt but little at Galveston, but l'Île Dernière, or Last Island, a summer resort on the Louisiana coast, was engulfed, with the loss of many lives. The steamer Nautilus, from Galveston for New Orleans with 30 passengers, however, ran into the gale and foundered, all hands being lost except a Negro man who clung to a bale of cotton

and was cast ashore on the Louisiana coast.

In the latter part of September, 1865, a hurricane struck the town of Calcasieu on the west Louisiana coast. The place was inundated and some eight or ten persons perished. As there was neither telegraph nor rail communication with that place, the report was brought to Galveston by the master of a lumber schooner.

On Wednesday, October 2, 1867, a strong easterly gale commenced blowing at Galveston, which shifted to the northeast during the night, and on the morning of the 3d had attained a velocity estimated at between 60 and 70 miles an hour. There was no Weather Bureau and, of course, the figures were guess work. During the morning of the 3d the waters of the Gulf and bay rose rapidly until much of the city was flooded. The water from the north side came nearly up to Church Street at its

Note.—The next record I have is of the hurricanes of June 9 and October 1, 1871, but, as the Weather Bureau was then in operation at Galveston, they are omitted.

THE "QUANTICO" OR CHRISTMAS TYPHOON OF 1918.

By the Rev. José Coronas, S. J.

The track of this typhoon is said to be altogether abnormal, a warning for both the seaman and the forecaster. The typhoon is shown to have first moved toward the west by north, then to have inclined northwards whilst to the east of the central part of the Philippines, and finally recurving backward not only to west by north, but to west by south, and even to west-south-west. slow movement of the typhoon on December 23-24 is said in 99 per cent of the cases to be a sign that the typhoon was recurving north-eastward, especially at the end of December, and to the east of the Philippines. Observations, however, prove most conclusively that the movement was in the opposite direction. The rate of progress of the typhoon was at first about 11 miles an hour, the rate afterwards decreasing to 4 miles an hour or less, whilst after recurving to the west-south-west the typhoon attained its former rate of progress. The vortical calm was probably 15-25 miles in diameter. The area of destruction whilst it was raging in or near Luzon was about 80-100 miles in diameter. A large steamer, Quantico, was totally wrecked. -From abstract in Nature (London), Sept. 25, 1919, p. 79.

higher elevation, while from the Gulf side it reached nearly to Broadway. The cemeteries at Fortieth Street and Broadway were inundated, and all the lowland down the island was covered with water. Much damage was done to buildings in the city and more than 30 were destroyed. The lower floors of the stores on the Strand and Mechanic Street were flooded and their contents badly damaged. The brig Ocean Wave, from Philadelphia, was cast ashore on the beach near the present site of Fort Crockett, and her captain drowned. The bark Palace and the brig Equation in the harbor were driven ashore, as were a number of small craft, and the steamboats Alice M and Sunflower were wrecked. The trestle of the Galveston, Houston & Henderson Railroad between Eagle Grove and Virginia Point was completely wrecked, and communication was kept up by means of a ferry boat until it was rebuilt, which was not done for several months. There were three lives lost and the property damage was estimated at \$1,000,000, including that to vessels. As previously stated, the gale began from the eastward on October 2, the wind veering to the northeast during the night, and continuing from that quarter until about 2:30 on the afternoon of the 3d, when it lulled temporarily, to veer to the northwest from which point it blew strongly for a short time, the waters receding rapidly, and by 5 o'clock the sky was clear and the wind of only moderate velocity. This hurricane cut a channel 5 feet deep through the low sand flat east of Sixth Street, from the bay to the Gulf, which remained open for only a few months. It also did much damage at the mouth of the Rio Grande and at Brownsville.

¹ The tragic story of this disaster has been told with marvelous skill by Lafcadio Hearn in his "Chita, a memory of Last Island,"—c. F. T.

¹ Other typhoons are mentioned on p. 660, below.